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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,594	02/10/2004	Yao-Ching Stephen Chen	SVL920030104US1	1108
45727	7590	09/18/2006	EXAMINER	
LACASSE & ASSOCIATES, LLC 1725 DUKE STREET, SUITE 650 ALEXANDRIA, VA 22314			MOFIZ, APU M	
			ART UNIT	PAPER NUMBER
			2165	

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/774,594

Applicant(s)

CHEN ET AL.

Examiner

Apu M. Mofiz

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/10/04</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-29 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No. 10/774,584. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the instant application are claiming common subject matter and they are substantially similar in scope and they use the same limitations, using varying terminology. They are not patentably distinct from each other because claims 1-26 of copending Application No. 10/774,584 contain every element of claims 1-29 of the instant specification.

"A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651."

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-29 are rejected under 35 U.S.C. 102(a) as being anticipated by Franz et al., An Efficient XML Schema Typing System, November 18, 2003, pages 1-20 and hereinafter referred to as Franz.

As to claims 1 and 28, Franz teaches a method for validating a fragment of a structured document comprising steps of: a. compiling an XML schema definition, b. storing said XML schema definition, c. receiving as input said stored XML schema definition and a fragment of a structured document into a runtime validation engine, and outputting a validation pass or fail on the basis of said input (pages 1-5).

As to claim 2, Franz teaches wherein said structured document is an XML document (pages 1-5).

As to claim 3, Franz teaches wherein said runtime validation engine is comprised of a generic parser and a runtime schema validation parser (pages 1-5).

As to claim 4, Franz teaches wherein said generic parser is a generic XML parser (pages 1-5).

As to claims 5 and 29, Franz teaches a method of preparing a fragment of a structured document for validation comprising steps of: a. locating a start state for said validation process from a type-mapping table, b. obtaining a token from said structured document fragment, c. determining whether said token is of element type said structured document fragment is to be validated against, d. checking whether said token signifies end of said structured document, and returning a validation success or a validation failure, based on said determining and checking steps (pages 1-5).

As to claim 6, Franz teaches wherein said structured document is an XML document (pages 1-5).

As to claim 7, Franz teaches wherein said token is either an element type name or an attribute name (pages 1-5).

As to claim 8, Franz teaches wherein if in said determining step it is determined that said token is not of said element type, returning a validation failure, else repeating process from said obtaining step (pages 1-5).

As to claim 9, Franz teaches wherein if in said checking step it is determined that said token signifies end of said structured document, said validation process terminates (pages 1-5).

As to claim 10, Franz teaches wherein said validation process is repeated from said obtaining step until said validation process returns a validation failure or it is determined in said checking step that said obtained token signifies end of said structured document and said validation process terminates (pages 1-5).

As to claim 11, Franz teaches a method of constructing a type-mapping table comprising steps of: a. building a type hierarchy ordered tree from a structured document schema, b. supplying input to an element validation module, c. creating a type-mapping table entry for a current element type in said structured document schema, d. traversing said type hierarchy ordered tree, and populating a type-mapping table with type-mapping entries created in said creating step (pages 1-5).

As to claim 12, Franz teaches wherein said structured document schema is an XML schema (pages 1-5).

As to claim 13, Franz teaches wherein said method takes as input an AAE (pages 1-5).

As to claim 14, Franz teaches wherein said AAE is comprised of an annotation hierarchy and an automaton encoding (pages 1-5).

As to claim 15, Franz teaches wherein said data structures and variables are comprised of a token array, a variable holding the index of the last token received, and a variable holding the index of start token received (pages 1-5).

As to claim 16, Franz teaches wherein said type-mapping table entry for said element type is formed by supplying a start token from an annotation record to an element validation module (pages 1-5).

As to claim 17, Franz teaches wherein said element validation module is reset after each entry is created for each element type (pages 1-5).

As to claim 18, Franz teaches wherein said data structures are initialized and said variables are set to zero after an entry has been created for each element type (pages 1-5).

As to claim 19, Franz teaches wherein said type-mapping table entries are comprised of a result path to current element type, a current element type, an annotation record for current element type, and a current state (pages 1-5).

As to claim 20, Franz teaches wherein said process is repeated for each global element child type (pages 1-5).

As to claim 21, Franz teaches wherein said traversing step further comprises steps of: a. determining whether an entry has been created for all element types in said schema, b. appending a start token of a current sub-element type to a token array data structure, c. incrementing an environment variable representing an index for a last token d. supplying said token to said element validation module, e. creating an entry for said current sub-element type in said type-mapping table, and f. updating data structures and variables (pages 1-5).

As to claim 22, Franz teaches wherein said traversing step takes as input an AAE, said current element type, and said data structures and variables (pages 1-5).



As to claim 23, Franz teaches wherein said entry is comprised of a result path for said current sub-element type, an element type name for said current sub-element type, an annotation record for said current sub-element type, and a current state (pages 1-5).

As to claim 24, Franz teaches wherein if said current sub-element type is a reference to a global element type, said result path is a union of the path from root of said schema to said current sub-element type and the result path in a type-mapping entry in said type-mapping table of said referenced global type; otherwise said result path is the path from root of said schema to said sub-current element type (pages 1-5).

As to claim 25, Franz teaches wherein said updating step further comprises steps of: a. setting a current index variable equal to an index variable representing an index of last token and b. pushing an annotation record for said current sub-element type and said current index of said token array onto a temp stack (pages 1-5; page 10).

As to claim 26, Franz teaches wherein said traversing step is recursively performed until type-mapping entries are created for all sub-element types descending from said current element type (pages 1-5; page 10).

As to claim 27, Franz teaches wherein if it is determined in said determining step that an entry has been created for all element types in said schema; an end token is appended to said token array, said token is supplied to said element validation module,

an annotation record for said current sub-element type is obtained from said temp stack, all tokens from a subset of indices within said token array are supplied to said element validation module, and said process terminates (pages 1-5; page 10; page 15).

5. Claims 1-4 and 28 are rejected under 35 U.S.C. 102(a) as being anticipated by Franz et al., Sun Microsystems, Java Architecture for XML Binding (JAXB), January 2003, pages 1-11 and hereinafter referred to as Sun.

As to claims 1-4 and 28, Sun teaches a method for validating a fragment of a structured document comprising steps of: a. compiling an XML schema definition, b. storing said XML schema definition, c. receiving as input said stored XML schema definition and a fragment of a structured document into a runtime validation engine, and outputting a validation pass or fail on the basis of said input (pages 1-5).

#### ***Points of Contact***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Apu M. Mofiz whose telephone number is (571) 272-4080. The examiner can normally be reached on Monday – Thursday 8:00 A.M. to 4:30 P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached at (571) 272-4146. The fax numbers for the group is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

A handwritten signature in black ink, appearing to read 'Abu M. Mofiz', is positioned above the printed name.

Abu M. Mofiz  
Primary Patent Examiner  
Technology Center 2100

September 13, 2006